

Research & Innovation in Emergency Medicine in Ireland

Prof. Ronan O'Sullivan

Head of Paediatrics, School of Medicine and Medical Science, UCD

Consultant in Paediatric Emergency Medicine, OLCCH

Director, Paediatric Emergency Research Unit, NCRC

Chair, Academic Committee, IAEM

National Programme Director, HSTEM

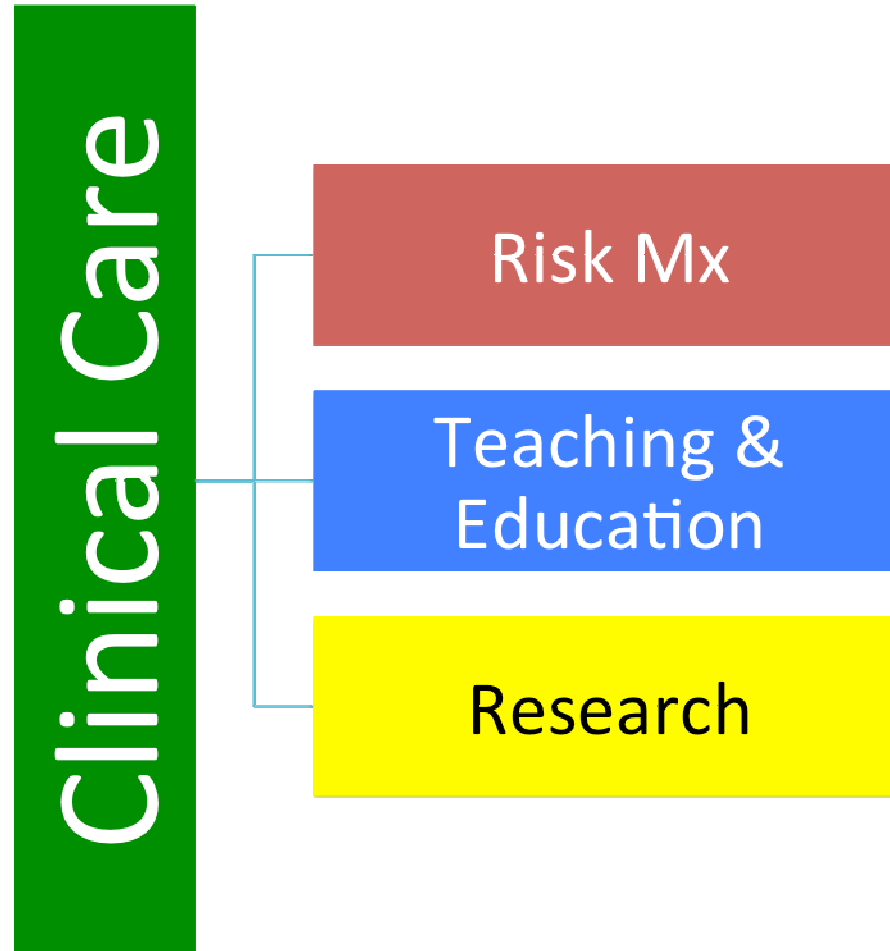


Research in EM

- Why?
- What?
- With?
- When?
- How?

Why?

Research in EM



Research in EM

- We have access to a unique, diverse (and large) population
- EM thinks ‘systems’ and ‘processes’
- Paradigm of evidence-based care fully embraced by EM
- Fundamental acceptance of EM not fully established
 - Others have a habit of telling us what to do (and what we shouldn’t be doing...)

Evidence-Based EM

- Should no longer be considered a 'luxury':
 - Surest and most objective way to determine and maintain consistently high quality and safety standards in medical practice
 - Can help speed up the process of transferring clinical research findings into practice
 - Guidelines/Algorithms/Care Pathways
 - Has the potential to reduce health-care costs significantly

Benefits of EBEM

- Research/Evidence *generating*
 - Implementation Science
 - Health Services Research
 - Translational Research

Decontamination of Asthma Spacer Devices for Re-use in a Paediatric Emergency Department



Carol Blackburn¹, Sandra Bennett², Paul Staunton¹, Sinead O'Donnell¹,
Sean Walsh¹, Niamh O'Sullivan², Ronan O'Sullivan¹

¹Paediatric Emergency Research Unit, Department of Emergency Medicine,

²Department of Microbiology,

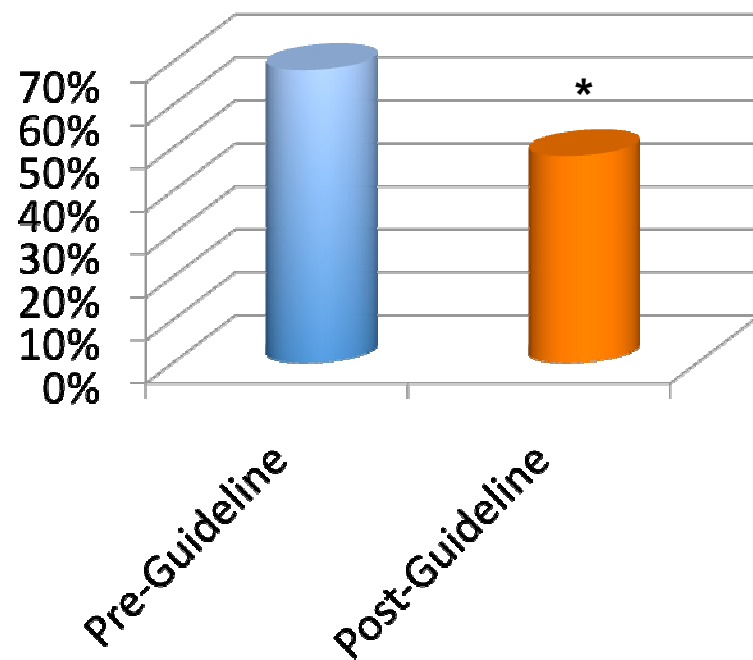
Our Lady's Children's Hospital, Crumlin, Dublin 12;

National Children's Research Centre, and University College Dublin, Ireland.

Academic Emergency Medicine 2011; 18(5):S84.

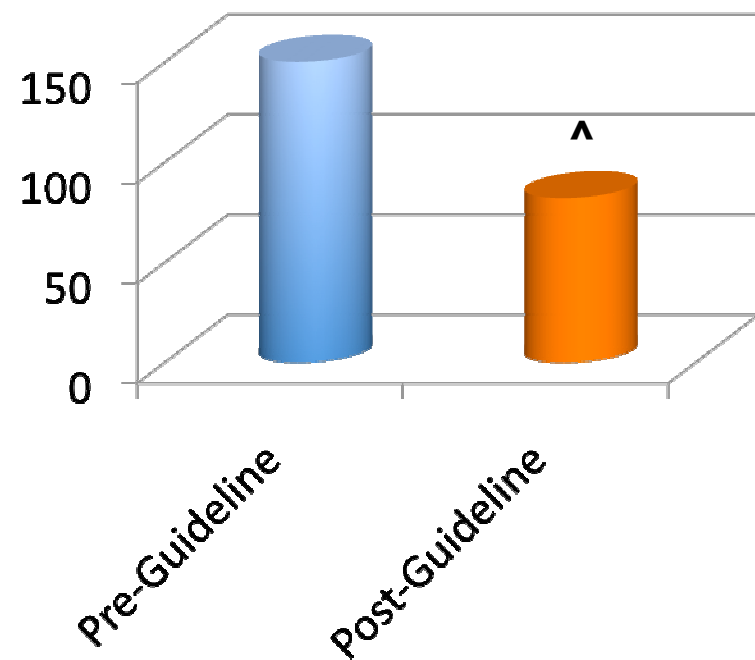
Limping Child CPG

Rate of Blood Testing



*p = 0.03

ED Length of Stay (minutes)



^p = 0.04

Why?

- How can I make my life easier?
- Default position is moaning
 - Bring solutions
 - Solutions need numbers
 - Data is 'king'
 - Clinical Registries
 - ICT supports

Positive impact of increased number of emergency consultants

Gary C Geelhoed,¹ Elizabeth A Geelhoed²

ABSTRACT

The increased presence of consultant staff should theoretically lead to better outcomes in emergency departments (EDs). A retrospective observational study was conducted in a tertiary paediatric emergency department (PED) over a 10-year period documenting trends in percentage of children admitted, complaints to the department and average waiting times. Consultant numbers increased from 2.6 to 6.2 full time equivalent staff between 2000 and 2004. Other staffing numbers were essentially unchanged. All parameters examined improved coincident with increasing consultant numbers. The percentage of children admitted decreased by 27%, complaints fell by 41% and the average waiting time by 15%. The yearly cost of an additional 3.6 consultants (2005) was \$A1 003 490 with net saving to the hospital of over \$A9.48 million. The provision of additional consultant medical staff in a PED coincided with a decrease in the percentage of children admitted, complaints to the department and average waiting times, and was cost effective.

What?

What?

- Bench/Laboratory research
- Translational research
- Clinical research
- Quantitative v. Qualitative research
- Health Services research
- Secondary research



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- **Sonja Henderson**, Managing Editor of the Cochrane Pregnancy and Childbirth Group, Liverpool, UK



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- The Cochrane Library usage data 2009

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With?

- Do your homework
 - Supervision crucial
 - Is there a plan/hypothesis, including an outline thesis?
 - Where's your funding coming from?
 - Are you adequately protected in terms of time?
 - Have you a realistic view of what's involved?

When?

When?

- No right or wrong answer to this one
- MB/PhD route?
- Between BST and HST?
- During HST?
- After HST?

Why?

- CV – competitive at interview
 - Standard post
 - Academic post
- Critical Appraisal/EBEM
- Full-time research
- MB/PhD
- Academic track for SpRs

How?

IAEM Academic Committee

- Re-established 2009
- National Research Strategy
- National EM Research Network (ECARN)
- Research Nodes
 - ECRU
 - REDSPoT
 - CPR
 - PERU

IAEM Academic Committee

- Health Services Research
 - KPIs
 - ‘Lean Sigma’
- Clinical Research
 - Multi-centre PRCTs
- Systematic Reviews
- Guideline Clearinghouse

Barriers to Research in EM

- Protection of Researchers (Clinical)
 - Lack of PIs
- Funding
- Ethical considerations (consent, etc)



paediatric emergency research unit

PERU

- Affiliated with NCRC and international PEM research networks
- Staff
 - Director
 - Clinical Research Nurse
 - Research Fellows
 - Research Assistant
 - Other Members

Active Projects

- Departmental
 - > 20 projects incl. PRCTs, Registry development, qualitative studies, prospective observational studies, genomic research
 - Reflective of diversity of our practice
 - Grant funding from NCRC, HRB, CIHR

PERU

- Weekly Research Meeting (Mon 1100-1300)
 - Operational
 - Manuscript preparation
 - Meeting submissions
- Weekly Journal Club
- ‘Articles of the Month’
- Newsletter



The Gold Standard

Paediatric Emergency Research Unit (PERU) Newsletter

Issue 8, September 2011

Author:
Ms S. McCoy

"If we knew what it was we were doing, it would not be called research, would it?" - Albert Einstein

The Research Team

Ronan O'Sullivan, Sean Walsh, Siobhan McCoy (Research Nurse), John Cronin (Research Fellow), Michael Barrett (Research Fellow), Adrian Murphy (Research Fellow), Julia Pollock (Research Assistant), Bridget Conway, Amanda McDonnell, Ruth Howard

Welcome

The staff of OLCHC ED would like to extend a warm welcome to the new nurses and to our first medical research student, Julia Pollock who started in the ED in September. We hope you all enjoy your time here with us.

A Randomised Trial of Single Dose Oral Dexamethasone versus Multi-Dose Prednisolone in the Treatment of Acute Exacerbations of Asthma in Children who attend the Emergency Department

Recruitment for our first ever clinical trial in the OLCHC ED is going very well and on the 02nd October we broke into the 60%: Over 25% of the required sample size! Hence why John Cronin is looking to goofy.....



We would like to thank all the staff for your continued hard work and for the great response to the trial. So far we have had two visits from an outside monitor for the trial, these are the people who ensure that everything is being done correctly and our documentation is in tip top shape. Both these visits have been very successful and any discrepancies found have been small. The monitoring visit helps the Research Team identify outstanding education that is required and improvement that need to be made to any of the trial documentation.

Changes that have been made so far:

- We have changed the recruitment sticker to make to easier to read and more user friendly
- The consent forms have been changed to include the correct date and version number re: the patient information Leaflet and this seemed to be causing confusion.

- Finally you also may have notice the Case Report Form has also changed to make it more comprehensive

Presently the numbers are great, however I understand that we have had a number of parental refusals. This is the reality of running clinical trials and although it can be frustrating there is no need to resort to this.....



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We will get the numbers we need if we keep going as normal. Congratulations to the recruiter of the month for September

Aine Mitchell

You can collect your prize from the Nurses Office

POINTS TO REMEMBER

- o When consenting patients the parent must **PRINT, DATE AND SIGN** their own names;
- o if children sign the parental consent form this does not mean they have assented to treatment as they must also complete an age appropriate assent form;
- o if circling assent taken on the recruitment sticker you should try to obtain assent, if this is not possible please amend recruitment sticker;
- o if a mistake is made on any of the trial documentation please initial and date error;
- o When discharging a patient please don't forget to give them their **ASTHMA DIARY**.





Key Collaborations

- Trial Management
 - Clinical Trials Pharmacist
- Database support
- Biostatistical input

Summary

- Significant research activity in EM in Ireland
- National research strategy being 'stress tested'
- Fundamental element of our development as a specialty/care system

